Eltwin A/S
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ECF-DOUBLE-AHU

PRODUCT DATA

ECF-DOUBLE-AHU	180	370	750
Supply voltage	1 x 180-250V~ 50/60Hz		
Supply current	1.4A	2.7A	5A
Output current	0.6A	1.3A	3.1A
Input power	235W	455W	800W
Size	250 x 150 x 82mm	220 x 180 x 105mm	
Weight	2.2kg	3.0kg	
PFC	Passive PFC to comply with EN61000-3-2		
Efficiency	94-96%		
Environment temp	-30ºC to +50ºC		
Storage temp	-40ºC to +70ºC		
Humidity	10-90% RH non condensing		
Protection class	IP 54		
Inrush current	Limited max 3.5A		
CE	EN 61800-5-1 safety requirements		
EMC	EN 61800-3		
Leakage	< 3.5mA		
Maximum voltage trip fault	approx. 255V~		
Minimum voltage trip fault	approx. 170V~		
Cable glands	M20 for supply and motor M16 for control		
Analog control	0-10V= minimum to maximum speed max speed reached @ 9.8V		
Input impedance 0-10V	150kOhm		
Aux supply output	12V max 20mA		
Start input	Active low approx. 3mA		
Direction input	Optional		
Modbus	Type RTU : Default settings : 115200 - 8 bit - 1 stop bit - even parity		
Modbus address	1 or 2 by DIP switch		

ECF-DOUBLE-AHU

Eltwin ECF series are unique PM motor controllers for the growing market of energy saving fans etc. It is also a SENSORLESS controller, so there are no need for positioning sensors in the PM motors. Permanent magnet synchronous motors are highly efficient and widely used today for fans,
compressors, pumps and other applications. Compared to traditional frequency inverters and AC motors, the new ECFs and attached PM motor can save between 20-30% of energy. Its a GREEN product that meets new environmental demands around the world. Moreover, PM motors have a flat characteristic, so the torque is almost constant during the controllable speed range. These inverters have an efficiency of about 94-96% and the motor is controlled using FOC sinusoidal motor currents. ECFs employs the newest technology within sensor less control of PM motors, and will be best suited for environmental demands in the future. Motors have to be matched to the controller for optimum performance and energy savings. Eltwin will optimize these inverters to match the specific motors together with the customer
ECFs comes as a “plug and play” unit in a IP54 Cabinet. Connect power and motor, analogue control and that’s it. Multiple safety functions makes the controller extremely robust, and the integrated EMC filter ensures CE compatibility. Also, the ECFs can be controlled digitally.